CLAIMS LISTING

1. (Currently amended) A dosage form of a pharmaceutical composition which comprises an effective amount of a centrally-acting acetylcholinesterase inhibitor for the treatment of Alzheimer's disease selected from the group consisting of galanthamine, lycoramine, analogs of galanthamine, analogs of lycoramine and rivastigmine wherein said analogs of galanthamine or lycoramine are compounds wherein one or more of the methoxy, hydroxy or N-methyl groups is replaced as follows: the methoxy group by another alkoxy group of from two to six carbon atoms, a hydroxy group, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group, a carbonate group or a carbamate group; the hydroxy group by an alkoxy group of from one to six carbon atoms, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group; a carbonate group or a carbamate group; the N-methyl group by hydrogen, alkyl, benzyl or a cyclopropylmethyl group or a substituted or unsubstituted benzoyloxy group; said compounds having a half life of from one to eleven hours wherein acetylcholinesterase inhibitor is formulated so as to delay its activity for a predetermined period of from four to twelve hours such that acetyl cholinestrase inhibition is avoided during such predetermined period.

2. Canceled

3. (Previously Presented) A dosage form of a pharmaceutical composition as claimed in claim 1, wherein the composition is formulated to delay the activity of the acetyl cholinesterase inhibitor for a period of from six to nine hours.

4. (Previously Presented) A dosage form of a pharmaceutical composition as claimed in claim 1, wherein the composition is formulated to delay the activity of the acetyl cholinesterase inhibitor for a period of from eight to twelve hours.

5. (Original) A dosage form of a pharmaceutical composition as claimed in claim 1, wherein said acetylcholinesterase inhibitor has a duration of action of from 2 to 12 hours.

6. Canceled

7. Canceled

8. Canceled

9. Canceled

10. (Previously Presented) A dosage form as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs thereof wherein the methoxy group of such compounds is replaced by a hydrogen, hydroxy or alkoxy group of from two to six carbon atoms or an acyloxy group of from one to seven carbon atoms.

11. (Previously Presented) A dosage form as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the methoxy group thereof is replaced by a mono or dialkyl carbamate or carbonate group wherein the alkyl groups contain from 1 to 8 carbon atoms

12. (Previously Presented) A dosage form as claimed in claim 11, wherein the alkyl group or groups of said carbonate or carbamate groups comprise from 4 to 6 carbon atoms

13. (Previously Presented) A dosage form as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the hydroxy group thereof is replaced by a mono

or dialkyl carbamate or carbonate group wherein the alkyl groups contain from 1 to 8 carbon atoms.

14. (Previously Presented) A dosage form as claimed in claim 12, wherein the alkyl group or groups of said carbonate or carbamate groups comprise from 4 to 6 carbon atoms.

15. (Currently Amended) A dosage form as claimed in claim [7] 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the methoxy group thereof is replaced by an aryl carbamate or carbonate group wherein said aryl group is selected from phenyl, naphthyl, substituted phenyl and substituted naphthyl groups wherein said substituent is selected from alkyl and alkoxy groups of from 1 to 6 carbon atoms, trifluoro methyl groups and halo groups.

16. (Previously Presented) A dosage form as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine and lycoramine wherein the hydroxy group thereof is replaced by an aryl carbamate or carbonate group wherein said aryl group is selected from phenyl, naphthyl, substituted phenyl and substituted naphthyl groups wherein said substituent is selected from alkyl and alkoxy groups of from 1 to 6 carbon atoms, trifluoro methyl groups and halo groups.

17. (Previously Presented) A dosage form as claimed in claim 1, wherein said acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs thereof wherein the hydroxy group of such compounds is replaced by a hydrogen or alkoxy group of from one to six carbon atoms or an acyl group of from one to seven carbon atoms.

18. (Original) A dosage form of a pharmaceutical composition as claimed in claim 7, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine and lycoramine wherein the hydroxy group of galanthamine or lycoramine is replaced by an alkoxy group of from one to six carbon atoms, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group, a carbonate group or a carbamate group.

19. (Original) A dosage form as claimed in claim 7, herein said acetylcholinesterase inhibitor is galanthamine.

20. (Original) A dosage form as claimed in claim 1 wherein said acetylcholinesterase inhibitor is rivastigmine.

21. (Currently Amended) A method of treatment of a patient suffering from Alzheimer's disease which comprises administering a dosage form of pharmaceutical composition which comprises an effective amount of a centrally acting acetycholinesterase inhibitor useful in the treatment of Alzheimer's disease selected from the group consisting of galanthamine, lycoramine, analogs of galanthamine and lycoramine and rivastigmine wherein said analogs of galanthamine or lycoramine are compounds wherein one or more of the methoxy, hydroxy or N-methyl groups is replaced as follows: the methoxy group by another alkoxy group of from two to six carbon atoms, a hydroxy group, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group, a carbonate group or a carbamate group; the hydroxy group by an alkoxy group of from one to six carbon atoms, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group; a carbonate group or a carbamate group; the N-methyl group by hydrogen, alkyl, benzyl or a cyclopropylmethyl group or a substituted or unsubstituted benzoyloxy group; said compounds having a half life of from one to eleven hours wherein the

acetylcholinesterase inhibitor is formulated so as to delay its activity for a specified period of from four to twelve hours, such that acetyl cholinesterase inhibition is avoided during such predetermined period and wherein said administration is effected at a time prior to a patient's sleeping such that the activity of the cholinesterase inhibitor is delayed until after the patient has completed a period of sleep.[.]

22. Canceled.

23. Canceled

24. (Previously Presented) A method of treatment as claimed in claim 21, wherein the composition is formulated to delay the activity of the acetyl cholinesterase inhibitor for a period of from six to nine hours.

25. (Previously Presented) A method of treatment as claimed in claim 21, wherein the composition is formulated to delay the activity of the acetyl cholinesterase inhibitor for a period of from eight to twelve hours.

26. (Original) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor has a duration of action of from 2 to 12 hours.

27. Canceled

28. Canceled

29. (Previously Presented) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs thereof wherein the methoxy group of such compounds is replaced by a hydrogen, hydroxy or alkoxy group of from two to six carbon atoms or an acyloxy group of from one to seven carbon atoms.

30. (Previously Presented) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the methoxy group thereof is replaced by a mono or dialkyl carbamate or carbonate group wherein the alkyl groups contain from 1 to 8 carbon atoms.

31. (Original) A method of treatment as claimed in claim 30, wherein the alkyl group or groups of said carbonate or carbamate groups comprise from 4 to 6 carbon atoms.

32. (Original) A method of treatment as claimed in claim 31, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the hydroxy group thereof is replaced by a mono or dialkyl carbamate or carbonate group wherein the alkyl groups contain from 1 to 8 carbon atoms.

33. (Original) A method of treatment as claimed in claim 32, wherein the alkyl group or groups of said carbonate or carbamate groups comprise from 4 to 6 carbon atoms.

34. (Previously Presented) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine or lycoramine wherein the methoxy group thereof is replaced by an aryl carbamate or carbonate group wherein said aryl group is selected from phenyl, naphthyl, substituted phenyl and substituted naphthyl groups wherein said substituent is selected from alkyl and alkoxy groups of from 1 to 6 carbon atoms, trifluoro methyl groups and halo groups.

35. (Previously Presented) A method of treatment as claimed in claim 21, wherein

said acetylcholinesterase inhibitor is selected from the group consisting of analogs of galanthamine and lycoramine wherein the hydroxy group thereof is replaced by an aryl carbamate or carbonate group wherein said aryl group is selected from phenyl, naphthyl, substituted phenyl and substituted naphthyl groups wherein said substituent is selected from alkyl and alkoxy groups of from 1 to 6 carbon atoms, trifluoro methyl groups and halo groups.

36. (Previously Presented) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is selected from the group consisting of galanthamine, lycoramine and analogs thereof wherein the hydroxy group of such compounds is replaced by a hydrogen or alkoxy group of from one to six carbon atoms or an acyl group of from one to seven carbon atoms.

37. (Previously Presented) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is galanthamine.

38. (Original) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is rivastigmine.

39. (Original) A method of treatment as claimed in claim 21, wherein said acetylcholinesterase inhibitor is administered in conjunction with a compound that reduces its peripheral effects.

40. (Original) A method of treatment as claimed in claim 39, wherein said acetylcholinesterase inhibitor is administered in conjunction with a suitable dose of probanthine or robinul.

41. (Previously Presented) A method of treatment of a patient suffering from a Alzheimer's disease which comprises administering a delayed release dosage form of a pharmaceutical composition which comprises an effective amount for treating

Alzheimer's disease of a centrally acting acetycholinesterase inhibitor selected from the group consisting of galanthamine, lycoramine, analogs of galanthamine and analogs of lycoramine and rivastigmine wherein said analogs of galanthamine or lycoramine are compounds wherein one or more of the methoxy, hydroxy or N-methyl groups is replaced as follows: the methoxy group by another alkoxy group of from two to six carbon atoms, a hydroxy group, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group, a carbonate group or a carbamate group; the hydroxy group by an alkoxy group of from one to six carbon atoms, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group; a carbonate group or a carbamate group; the N-methyl group by hydrogen, alkyl, benzyl or a cyclopropylmethyl group or a substituted or unsubstituted benzoyloxy group; and wherein said dosage is formulated such that the half life of the activity of the acetyl cholinesterase inhibitor and the degree of delayed release are selected such that the formulation may be administered to the patient such that release of acetyl cholinesterase ~~inhibition~~ inhibitor is ~~reduced~~ avoided for the next anticipated sleep time and wherein administration of the drug is at an appropriate time to achieve such results.

42. (New) A method of treating Alzheimer's disease comprising administration to a patient suffering therefrom a composition comprising a centrally acting acetyl cholinesterase inhibitor selected from the group consisting of galanthamine, lycoramine, analogs of galanthamine, analogs of lycoramine and rivastigmine wherein said analogs of galanthamine or lycoramine are compounds wherein one or more of the methoxy, hydroxy or N-methyl groups is replaced as follows: the methoxy group by another alkoxy group of from two to six carbon atoms, a hydroxy group, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted

benzoyloxy group, a carbonate group or a carbamate group; the hydroxy group by an alkoxy group of from one to six carbon atoms, hydrogen, an alkanoyloxy group, a benzoyloxy or substituted benzoyloxy group; a carbonate group or a carbamate group; the N-methyl group by hydrogen, alkyl, benzyl or a cyclopropylmethyl group or a substituted or unsubstituted benzoyloxy group; said compounds having a half life of from one to eleven hours wherein the nature of the composition and the time of administration of said acetyl cholinesterase inhibitor from said composition is such as to minimize release prior and during to desired sleep hours so as to allow the patient's central nervous system to become hypocholinergic during the period of desired sleep as compared to its cholinergic activity during hours when desired to be awake so as to avoid sleep disturbance during hours of desired sleep while providing therapeutic activity at other times.